

REMARKS

By this Amendment, withdrawn claims 20-35 are cancelled without prejudice to or disclaimer of the subject matter contained therein, and new claims 36-43 are added, leaving claims 1-19 and 36-43 pending in the application. The specification is amended to describe the "catalyst unit 36" as shown in Figure 1 of the amended drawings filed on May 9, 2007. No new matter is added by the amendments. Favorable reconsideration is respectfully requested in light of the above amendments and the following remarks.

Drawings

The Office Action does not indicate whether the proposed drawing amendments set forth in the Amendment filed on May 9, 2007, were accepted by the Examiner. The Examiner is respectfully requested to indicate in the next Office communication whether the drawing amendments have been accepted.

Rejections Under 35 U.S.C. § 103

Claims 1, 3-6, 8-14 and 16-19 stand rejected under 35 U.S.C. § 102(b) over U.S. Publication No. 2002/0129915 to Zelina et al. ("Zelina") in view of GB 2 354 443 ("GB '443"). This rejection is respectfully traversed.

Claim 1 recites a device for sterilization in production of packages, which is adapted for sterilization with a gaseous sterilizing agent kept in the gaseous phase throughout the sterilization process. The device comprises a heating zone, a sterilization zone, a venting zone, an ambient temperature sensor located outside of the device for sensing the ambient temperature outside the device, a relative

humidity sensor for measuring the relative humidity outside the device, a concentration meter for measuring the concentration of sterilizing agent in the sterilization zone, and a first control unit for controlling the amount of sterilizing agent introduced in the sterilization zone based on the temperature measured by the ambient temperature sensor, the relative humidity measured by the relative humidity sensor and the concentration measured by the concentration meter (emphasis added).

In the device recited in claim 1, air used for pre-heating, sterilization and venting is supplied from the ambient air outside the device, i.e., the ambient air is drawn into the device. Preferably, before returning the air to the environment, any sterilizing agent residue is removed by catalysts. Accordingly, it is desirable to sense the ambient temperature outside of the machine with the ambient temperature sensor. Due to this use of ambient air in the device, the device can be described as not having a "closed loop" where air / gas is recirculated. (Recirculation can occur during package pre-heating.)

The device recited in claim 1 uses direct, or "online control." For example, in a first control loop, the ambient temperature sensor senses the ambient temperature outside the device, the relative humidity sensor measures the relative humidity outside the device, and the concentration meter measures the concentration of sterilizing agent in the sterilization zone. The first control unit receives signals from the ambient temperature sensor, relative humidity sensor and concentration meter and controls the amount of sterilizing agent introduced in the sterilization zone.

The Office asserts that Zelina's vapor decontamination system comprises a heating zone 170 (heating chamber 170), sterilization zone 11 (decontamination

tunnel 11) and venting zone 182 (aeration chamber 182) as shown in Figure 8; an ambient temperature sensor 152 (monitor 152) "that is capable of measuring the ambient temperature outside the device as shown in Figure 1," a concentration meter 153 (monitor 153) "that is capable of measuring the concentration of sterilizing agent in the sterilization zone as shown in Figure 8" and a first control unit 150 (control system 150).

The Office acknowledges that Zelina does not disclose a temperature sensor located outside the device, or a relative humidity sensor for measuring the relative humidity outside the device.

The Office asserts, however, that Watling discloses a device 10 for the sterilization of packages, which comprises a controlled loop with ambient temperature and relative humidity sensors (14) located outside the device. The Office contends that it would have been obvious to provide relative humidity and ambient temperature sensors located outside the device in Zelina's apparatus. Applicants respectfully disagree.

Zelina discloses that the monitors 152, 153 monitor conditions within the tunnel 11. Zelina does not suggest the combination of an ambient temperature sensor, relative humidity sensor and concentration meter, much less the combination including an ambient temperature sensor located outside of the device for sensing the ambient temperature outside the device, and a relative humidity sensor for measuring the relative humidity outside the device, as recited in claim 1.

GB '443 discloses a closed system in which air / gas is continuously recirculated. In Figures 1 and 2 of GB '443, the "Temperature & R.H. Measurement" monitor 14 is positioned along the gas flow circuit 12. As described at pages 8 to 9

of GB '443, a carrier gas (air) and at least one sterilizing gas are drawn from the sealed chamber to the apparatus through sealed connections. The monitor 14 measures the temperature and relative humidity of the gas flow through circuit 12, not of the ambient air. The circuit 12 includes heaters 24 and 25 arranged upstream of the sealed chamber 10 to heat the gas. GB '443 also does not suggest "an ambient temperature sensor located outside of the device for sensing the ambient temperature outside the device," or "a relative humidity sensor for measuring the relative humidity outside the device," as recited in Claim 1.

Accordingly, because the combination of Zelina and GB '443 does not suggest every feature of claim 1, the Office has not articulated a reason to combine the teachings of these references to result in the device recited in claim 1. Therefore, claim 1 is patentable. Claims 3-6, 8-14 and 16-19, which depend from claim 1, are also patentable over the combination of Zelina and GB '443 for at least the same reasons as those for which claim 1 is patentable.

Claims 2 and 7 were rejected under 35 U.S.C. § 103(a) over Zelina in view of GB '443, and further in view of U.S. Patent Application Publication No. 2001/0000558 to Taggart ("Taggart"). The rejection is respectfully traversed.

Claims 2 and 7 depend from claim 1. Taggart discloses an apparatus for providing container lidding and sealing. Applicants respectfully submit that Taggart does not disclose or suggest the above-discussed missing features of Zelina of GB '443 in regard to claim 1. Accordingly, even if Zelina, GB '443 and Taggart were combined in the manner proposed by the Office, their combined teachings still would not include every feature recited in claim 1. Thus, claims 2 and 7 are patentable

over the applied references for at least the same reasons as those for which claim 1 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

Claim 15 was rejected under 35 U.S.C. § 103(a) over Zelina in view of GB '443, and further in view of U.S. Patent Application Publication No. 2001/0000558 to Niwa ("Niwa"). The rejection is respectfully traversed.

Claim 15 depends from claim 1. Niwa discloses an apparatus for producing long-term preservable lunches. Applicants respectfully submit that Niwa does not disclose or suggest the above-discussed missing features of Zelina and GB '443 in regard to claim 1. Accordingly, even if Zelina, GB '443 and Niwa were combined in the manner proposed by the Office, their combined teachings still would not include every feature recited in claim 1. Thus, claim 15 is patentable over the applied references for at least the same reasons as those for which claim 1 is patentable. Therefore, withdrawal of the rejection is respectfully requested.

New Claims

New claims 36-43 depend directly or ultimately from claim 1. Accordingly, claims 36-43 are also patentable.

Conclusion

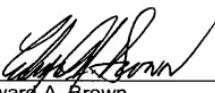
The application is believed to be in condition for allowance. Should there be any questions concerning this reply or the application in general, the Examiner is respectfully requested to contact the undersigned at the number given below.

Respectfully submitted,

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